

Shan Tang

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EDUCATION

Duke University | Durham, NC

Anticipated Graduation May 2027

Intended major: Mechanical Engineering

Relevant coursework: Linear Algebra, Engineering Design, Emerging Materials for Energy Future

Algonquin Regional High School | Northborough, MA

June 2023

GPA: 4.51 Weighted

EXPERIENCE

Dana Farber Cancer Institute/Harvard Cancer Center | Boston, MA

June - Aug 2022

CURE Summer Intern

- Used **R** to analyze and **improve gene panels** for spacial tissue profiling
- Suggested **283 missing/substitute genes** to improve target gene panels in MERSCOPE
- Presented project and data at CURE program presentations

Iridium Tutoring | Southborough, MA

Jul 2020 - Jun 2023

Director of Education and Volunteer Tutor

- Tutored **15+ students** aged 6-14 for **500+ hours**, mainly math and English
- Co-produced math course for **Algebra 2** and **competitive math**
- **Co-organized** in-person coding classes for **~40 students K - 5th Grade**
- **Coordinate 100+ tutors** and their schedules

PROJECTS

Motorsport Projects

Sept 2023 - Present

- Modifying car engine stand to fit motorcycle engine to increase team speed and productivity while working on the engine

Lower Extremities 3D Scanner With PROTECT3D

Aug 2023 - Present

- Designing system to support and scan lower leg and foot for custom orthotics

Discare: Natural Language Processing Moderator

Jun 2022

- Used **Python** to train **BERT** to analyze social media messages for "sadness" to privately message words of encouragement
- Won **1st Place** with best use of **AI/Machine Learning** in LingHacks hackathon

Antibiotics filter for toilets

Aug 2021 - May 2022

- Used Blender to design and prototype filter to reduce concentration of antibiotic by up to 300%
- Presented project at regional and state science fairs

AWARDS

Massachusetts Math League Olympiad: 10th in State (Out of ~800)

Mar 2022

Scholastic Writing and Art Awards: National Gold Medal in Flash Fiction

Mar 2022

Yale Girls in Math Math Tournament: 4th Place Individual

Feb 2020

SKILLS, AND CERTIFICATES

Skills: Python, Swift, R, Java, HTML, Fusion 360, Solidworks, Figma, Lathe, Milling

Certificates: *Introduction to Machine Learning (2021), CPR and AED (2023), Foundations of Cybersecurity (2023), Student Machine Shop (2023)*